

**Colorado Department of Health
Hazardous Materials & Waste Management Division**

Comments

on

TECHNICAL MEMORANDUM NO. 1

ADDENDUM TO

FINAL PHASE 1 RFI/RI WORK PLAN

FOR

WALNUT CREEK PRIORITY DRAINAGE

OU-6

ROCKY FLATS PLANT

SEPTEMBER, 1992

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Section 2.0: The Division has reviewed the Final Draft Phase I RFI/RI Workplan dated April, 1991 and learned that the five bedrock wells in question were originally proposed for the Site-Wide Geologic Characterization Program; however, review of the Final Phase I RFI/RI received by the Division on October 6, 1992 states that the five wells will be installed to characterize the bedrock in the vicinity of the A-Series Ponds. The latter document does not mention the Site-Wide program by name. We understand from the current Site Wide Bedrock Characterization Manager that the five bedrock wells in question were desired as a site wide activity but that they were incorporated into the OU-6 Workplan for funding. In any event, they are part of the Field Sampling Plan for OU-6.

Regardless of their origin, the reason for drilling in the vicinity of the A-Series Ponds is to determine if the 10-15 foot thick sandstone found in monitoring well 1186 (now believed to be of the Laramie Formation) may be present beneath Ponds A-3 and A-4 as discussed on page 2-29 of the October 6th submittal. The Site Wide Manager further indicated the wells were no longer needed by her program since other site wide drilling indicated the Arapahoe (Laramie) 1-5 Sandstones were in fact lenticular sand bodies that exhibited low transmissivities. However, the Division's comments on the April, 1991 submittal (letter to Martin Hestmark from Gary Baughman dated July 12, 1991), regarding Section 2.2.5, reflect our concerns on the potential for sandstone units also "immediately

beneath" Ponds A-1 and A-2. Given the thickness of sandstone in Well 1186, the narrow stratigraphic range, uncertainty of the geologic dip, and the potential for higher transmissivities questions remain as to the potential for transport of contaminants through sandstones.

Regarding the statements in Section 2 that Wells 1486 and 1686 are upgradient of the proposed locations of the five bedrock wells the following observations may be made. The statement fails to take into account that any contamination contributed by the Triangle Area and Soil Dump Area (and possibly the East Spray Field) could not be detected by Wells 1486 and 1686. The statement further fails to recognize that the A-Series Ponds in themselves are potential contaminant sources that are downstream of the older wells.

Lastly, the conditional bedrock wells downstream of Ponds A-4 are appropriate; however, if sandstone is serving as a pathway it is more desirable to detect the problem at the source rather than downstream or downgradient. The reason for not proposing monitoring wells along the B-Series Ponds is that sandstone, based on earlier drilling, is not expected. Clearly, the five wells (four actually) were proposed to characterize the geology beneath the A-Series Ponds not for generalized Site-Wide investigation. The need for this information has not been reduced.

Section 3.0: The Division agrees that two alluvial wells downstream of both Ponds A-4 and B-5 are redundant. We recommend that EPA approve a reduction to one alluvial well per stream channel. The requirement for an additional bedrock well, if sandstone is the first bedrock unit encountered beneath the alluvium, should be maintained.

Section 4.0: The Division agrees with the elimination of the RAAMP stations from the RFI/RI Workplan as tentatively agreed to in a meeting held on June 16, 1992 between the affected parties. A subsequent polling of previously involved managers at the Division, and previously of EPA, failed to uncover any specific needs for the stations. A letter confirming this decision was planned for the week of June 22, 1992; however, it appears not to have been issued.

Section 5.0: The approved Phase I RFI/RI Workplan relied upon the Site Wide Surface Water Sampling effort to support the data needs of the Field Sampling Plan. Now DOE proposes to "add" a few of these stations back into the Workplan. The Division is concerned about the net reduction on sampling represented by the elimination of many of the site wide stations. Whether these reductions are appropriate needs to be resolved in a manner comparable to that recently employed for OU-5 to provide relative consistency between the sampling plans of the Walnut and Woman Creek drainages. The attached comments from Jeb Love of the Rocky Flats Program Unit should be considered when reformulating a surface water sampling

program. In so doing it is the desire of the Division that previously established stations and existing validated data, if appropriate, be utilized. As with OU-5, the Division recommends that surface water hydrologists walk the Walnut Creek drainages and reach agreement on locations and analytical suites.

Section 6.0: Although the request to eliminate the radiation survey from the western, gravel-covered portion of the Triangle Area is reasonable, DOE has failed to specify how radionuclide contamination would be determined. The TM specifies a Stage 3 - Soil Borings approach for the Triangle Area that is dependant upon the radiation survey. The proposed maximum of nine borings to transect radiation plumes is inadequate and must be re-proposed. Surficial soil sampling of the original or disturbed surface may be more appropriate than soil borings.

Section 7.0: The Division would prefer that HPGe be used for the radiation surveys; however, since the IAG called for use of the FIDLER instrumentation it may be substituted provided the grid spacings are enhanced to 25 foot and tightened upon detection of hot spots. However, the Division recommends, in the absence of HPGe, that a NAI probe be used. The FIDLER instrument, the Division has been informed, is a NAI-type device with a specific yet limited capability.